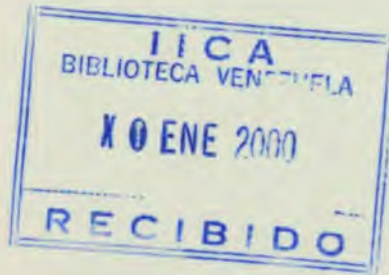


IICA
E71
52



Caribbean Regional Centre



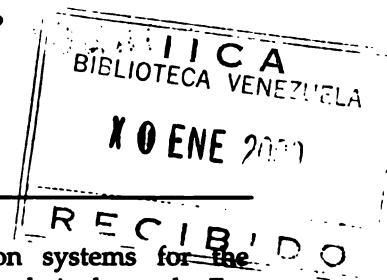
Agriculture in Suriname



00006261

10





Preface

Mindful of its technical cooperation responsibilities, IICA identified the critical need for improved information on the agricultural sector of member countries to assist them to more rapidly integrate with the global marketplace. The identification of the challenges and opportunities for the agri-food sector of constituent member countries, along with the development of a compendium of the best available comparative statistics for agriculture, was identified as a starting point.

Carlos Aquino Gonzales,
Director General, IICA

The data collection and analytical information systems for the agricultural sector in the Caribbean in general, is relatively weak. For Suriname in particular, due to the inadequacies of the information system and also to the fact that Suriname only recently (1996) became a member of CARICOM, very little, in terms of documentation on the agricultural sector, existed.

This working document represents one in a series of 13 working documents prepared for the IICA Caribbean member states, compiled for the specific purpose of preparing the document titled "Performance and Prospects for Caribbean Agriculture". The preparation of this working document constitutes a step towards the goal of improving access to information on the agricultural sector.

This working document was the result of a collaborative effort of Diana Francis and Michael Henry of the IICA Caribbean Regional Centre (CaRC), Dr. Guillermo Villaneuva of the IICA Technical Cooperation Agency (TCA) in Suriname, with support of the staff of the Ministry of Agriculture, Suriname. The information and analysis are based on statistics and descriptive information extracted primarily from reports of the Inter-American Development Bank (IDB), Caribbean Basin Profile publications as well as information from various national sources and other regional and international organisations. It is anticipated that the information will be useful, not only to national individuals and institutions working in agricultural development, but more so, to interested persons in other Caribbean countries who desire information on the agricultural sector in Suriname.

The guidance of Dr. Patrick Antoine, Head, Socioeconomic Policy, Trade and Investment Programme in the preparation of this working document is acknowledged. This report would not have been possible without the full commitment of the IICA Director General, Carlos E. Aquino G. and the Caribbean Regional Centre (CaRC) Director, H. Arlington D. Chesney.

This exercise will be undertaken every two years. We welcome comments aimed at improving subsequent reports. All errors and omissions are the responsibility of the author.

Working Document, #12 of 13, December 1997
Socioeconomic Policy, Trade and Investment Programme

INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE
CARIBBEAN REGIONAL CENTRE OFFICE IN TRINIDAD AND TOBAGO
P.O.Box 1318, Port of Spain, Republic of Trinidad & Tobago, W.I.
#3 Herbert Street, Newtown, Port of Spain, Republic of Trinidad & Tobago:
Tel: (868) 628 4403; 628-4078; 628-4079; 622-7093. Fax: (868) 628-4562. email: iica@iicacarc.org

Table of Contents

Preface.....	1
Table of Contents.....	2
Country Profile.....	3
Agriculture Sector Profile.....	4
Socio-Economic Role.....	4
Organizational Characteristics.....	5
Agriculture in Suriname ~ Performance Indicators, 1991-1995.....	7
Overall Sector Performance.....	7
Agricultural Diversification.....	7
Commodity/Sub-sector Performance.....	8
Rice.....	8
Bananas.....	10
Palm Oil.....	11
Fruits and Vegetables.....	12
Livestock Production.....	13
Fisheries.....	13
Agro-processing.....	14
Forestry.....	14
Constraints of Agriculture.....	15
Agriculture in Suriname ~ Prospects.....	17
International Environment.....	17
International - Domestic Link.....	19
International Commodity Trends.....	19
Export Agriculture.....	19
Rice.....	19
Banana.....	20
Palm Oil.....	21
Shrimp.....	21
Lumber.....	21
Other Agriculture.....	22
Agro-Industry.....	22
Guidelines for Policy Formulation.....	22

Country Profile

The **Republic of Suriname** (hereafter Suriname) is located on the north-central coast of South America. The country is bordered by Guyana to the west, Brazil to the south and by French Guiana to the east. The climate is subtropical, with temperatures ranging from 21-32°C and average rainfall of 867 inches per annum. Due to its southerly location, Suriname is not affected by the frequent hurricanes which affect many Caribbean countries during the June - November period each year. The country does, however, receive a substantial amount of rainfall in the wet season which frequently results in severe flooding, inflicting heavy damage to infrastructure and agriculture.

Suriname is the second largest country in the Caribbean, with a total land area of 163,820sq.km.. Of this total, 75% consists of hilly terrain which rises gradually to an elevation of about 1,255m. The northern coastal area comprises low flat plains with much of the country's forests and intermittent savannah located in the central zone. Forested area is estimated to occupy 90% of total land area, with arable land comprising a mere 9.1%. In addition to the forest-related resources (timber and water), Suriname is well endowed with gold, bauxite and to a lesser extent, petroleum reserves.

In spite of its vast size, Suriname is among the least populated Caribbean countries, with a population density of 2.5 per sq.km. The 1996 population was estimated at 411,555, with an average annual growth rate of 0.7%. Suriname's population comprises a mix of Creole (34%), Indian (34%), Indonesian (15%), Bush Negro (10%), Amerindian (3%) with the balance made up of Chinese and European. Approximately 90% of the total population are concentrated in urban areas which are situated along the coastal plain and on river estuaries.

Suriname experienced prolonged political instability in the 1980s, which wreaked havoc on the economy, leading to social decline. Following the return to constitutional government at the end of 1990 and the

continued implementation of a Structural Adjustment Programme, the Suriname economy showed signs of recovery. The SAP emphasised far reaching reform of the fiscal and monetary policies and the trade and exchange rate regimes as a means of achieving sustainable economic growth and development.

Between 1993-1994, some progress was achieved, particularly in the liberalisation and unification of the exchange rate. Exchange rate reform was aimed at eliminating some of the major price distortions in the economy, increasing the availability of foreign exchange and removing the administrative barriers and obstacles in order to encourage foreign investment. The SAP, however, did not achieve results immediately as evidenced by continued decline in real GDP by an average of 4.4% between 1993-1994. Suriname's key sectors and industries continued to experience fluctuating fortunes and variable annual growth.

In 1995, however, real GDP growth of 5.2% was reported, led mainly by recovery in the manufacturing and other industrial sectors. Growth continued in 1996, accompanied by improvements in the key macro-economic indicators, including improvements in the monetary reserves and a substantial reduction in the foreign debt. The maintenance of political stability and the deepening of economic reforms will contribute positively to the further improvements in the key economic and social indicators.

Suriname ~

<i>Economic Indicators</i>	1991	1992	1993	1994	1995
Exchange Rate	10.1	14.7	47.3	186.0	440.0
US\$m					
GDP 1990 prices	342	360	327	312	334
Agriculture	40	41	41	37	35
Manufacturing	39	39	37	37	39
Mining/Quarrying	10	11	12	14	14
Other Industry	20	24	17	17	19
Services	204	217	194	179	186
Fiscal Balance	-20.9	-59.5	-61.6	-27.1	-7.2
Visible Trade Bal	-1.2	68.5	84.4	99.3	109.5
External Debt	194.2	204.9	206.1	152.9	151.8

Source: *Economic & Social Progress in Latin America, 1996 Caribbean Basin Profile, 1995-1997*

Agriculture Sector Profile

Socio-Economic Role

During the decade of the 1980s, Suriname experienced a period of economic recession and instability. In spite of this, the agricultural sector's contribution to GDP increased from 8% to 12%, placing agriculture second to the bauxite industry in terms of contribution to national income. In spite of the continued difficulties in the 1990s, the sector maintained an 10% average annual share in real GDP.

Agriculture's contribution to the national economy has historically been dependent on a very limited range of exports, specifically, rice, banana and shrimp. These three export commodities are essentially responsible for the sectors 27% share of total export earnings.

Due to the dominance of rice and banana production, crop production accounted for over 60% of total agricultural output, with livestock and fishery accounting for the bulk of the balance (Table 1). Table 1 also indicates the relative importance of the various crop industries in total agricultural output for the 1992-1995 period. In terms of contribution to agricultural GDP, rice was the single most important crop in the 1990s, with bananas a distant second.

Table 1
Suriname: ~ Agricultural GDP Sub-Sectoral Shares

% (at 1980 prices)	1992	1993	1994	1995
Agriculture /GDP	10.1	10.9	10.2	9.2
<i>Sub-sectoral Shares:</i>				
Crops:	59.2	63.7	61.3	66.1
paddy Rice	23.1	18.7	20.8	22.8
Bananas	5.1	5.0	5.5	5.9
Plantain	8.3	8.7	9.7	10.3
Citrus & vegetables	23.7	31.3	31.3	27.1
Animal Husbandry	16.0	13.1	10.4	10.3
Forestry	5.8	5.6	6.2	7.3
Fisheries	16.0	15.6	14.6	15.4
Agro-Manufac/GDP	2.7	2.7	2.8	2.9
<i>Sub-sectoral shares</i>				
Shrimp Processing	44.1	46.3	42.5	38.6
Rice	20.9	17.1	20.0	20.4
Wood processing	32.6	34.1	37.5	41.0
Other	2.4	2.4	0.0	0.0

Source: Revitalizing Agriculture in Suriname, IDB 1997

The agro-industrial sector comprises a relatively small share of total GDP, averaging less than 3% of real GDP (1980 prices) over the 1992-1995 period. While shrimp processing accounted for the largest share of the agro-industrial sub-sector, the industry is based mainly on the sorting, grading and packaging of shrimp for export and not the change in form (or extensive processing) of shrimp per sé. However, shrimp processing has developed into a very technologically- driven industry, utilising the plant and equipment which satisfy international quality standards.

Agricultural sector activity was estimated to employ approximately 17% (1990-94 average) of the labour force. In the 1990s, agriculture continued to generate important employment opportunities, not only for Surinamese nationals, but also for immigrant labourers, particularly in the palm oil and banana industries. Given the high levels of out-migration of Surinamese workers over the last 20 years, the ability of the sector to generate employment is considered a sustaining factor in agriculture. The agricultural sector is thus the most critical source of employment and income-earning opportunities for the female rural labour force in particular, and for rural people in general.

Despite the discrepancies in employment statistics, the agricultural sector ranks second to the public sector as a source of employment. (Table 2), In 1995, it was estimated that agriculture absorbed approximately 15.7% of Suriname's workforce. This share, however, represented a decline from the 18% share of the previous decade.

Table 2
Suriname - Employment by Industry

% Share of Total	1991	1992	1993	1994
Labour Force	91,895	82,375	89,505	na
Agriculture, Livestock, Fisheries, Forestry	13,600	13,600	13,000	na
Mining	3,303	3,303	3,242	3,161

Source: General Bureau of Statistics, Suriname

Among the several factors which contribute to difficulties in estimating the active agricultural labour include: (i) the large number of unregistered foreign workers; (ii) the increasing importance of part-time workers holding other jobs; and (iii) the sector's inability to attract domestic labour despite the country's high unemployment rate. In 1990, the total number of full-time jobs in the sector was estimated at 12,000. This comprised 8,000 for crops, 1,700 for livestock and 2,300 in the fishery sub-sector. While jobs in the formal sectors are reported as not having changed very much, the informal sector, including the informal agricultural sector, appeared to have absorbed a significant proportion of the labour force.

Organizational Characteristics

In spite of its central role in the national economy, the organisation of activities and the distribution of resources in the sector are unevenly distributed between the public and private sectors. In spite of the economic reform programmes, agricultural activity continues to be heavily public-sector driven, both in terms of involvement in direct production as well as in terms of the high reliance of the majority of the direct farming population on public-sector run facilities and services.

Over the past 25 years, the Government of Suriname has played a predominant role in initiating certain agricultural activities and has acted as a catalyst for the development of others. Largely through its parastatal enterprises, state-owned foundations and projects financed under the MADP, the Government of Suriname accounts for a sizable share of agricultural production by cultivating approximately one-fifth of the country's land. The State was also active in the processing of some products (rice, palm oil and milk processing) and in the international marketing of others (rice and bananas).

The main public sector institution involved in agriculture is the Ministry of Agriculture, Fisheries and Livestock (MoA), charged with the responsibility to formulate, monitor and implement the Government's agricultural policy as well as to provide the requisite technical support for agricultural development.

The principal goals for agricultural and rural development as enunciated in the 1994-1998 Multi-Annual Development Plan (MADP) are:

- Diversification of the economy to reduce the dominance of the bauxite and rice industries;
- Self-sufficiency in food supply and improvement in the country's food balance;
- A drastic increase in productivity and production of agricultural products required to satisfy national, as well as industry and exports needs;
- Self-sufficiency and expertise through intensive education and training at all levels.

The MADP was conditioned by the Structural Adjustment Programme, which emphasized export promotion, import substitution and poverty alleviation. Within the policy guidelines, attention was also placed on gender-sensitive programmes, with an emphasis on promoting the active participation and integration of women in various projects and programmes. The SAP was also designed to address problems arising from the deterioration of agricultural and rural infrastructure through the implementation of priority support programmes, including :

- Technical assistance, programmes and facilities;
- Improvements in the institutions responsible for drainage systems and other physical infrastructure;
- Improvements in the institutions and physical infrastructure pertaining to agricultural research, extension and training;
- Introduction of new crops and environmentally sound and sustainable cultivation methods;
- Privatization of agricultural extension services;
- Privatization of parastatal enterprises in the general agricultural sector.

Additionally, the SAP was supportive of the implementation of a special credit programme, "the Smallholder Support Project" (SSP), for the development of the small-scale domestic production sector. Forty percent (US\$4M) of the cost of this programme was to be financed by the International Fund for Agricultural Development (IFAD) and sixty percent (US\$6M) by the Dutch Government.

In terms of improving the sector's performance, certain priority areas, including the need for monetary reform and institutional strengthening of the MoA., were identified for urgent attention. The MoA has traditionally been one of the largest Government departments in Suriname, employing on average, 1,370 persons. However, the gradual erosion in government finances, deterioration in agricultural infrastructure and the overall weak image of agriculture have contributed to a serious decline in the MoA's trained human resources.

Private sector agricultural-related institutions also suffered similar fates which severely compromised their ability to contribute effectively to agricultural development. In fact, reservations have been expressed about the resource (technical, financial and managerial) capacity of these organizations, such as such as rice and the Surinamese Entrepreneurs Association (VSB), to adequately participate in and support agricultural development. Such associations have memberships of several hundreds of companies involved in various sectors including agriculture, food processing and forestry.

Given the difficult situation facing agricultural production, there was a general tendency, on the part of the private sector, to be more involved in produce trading and to a lesser extent, agro-processing. The generally inappropriate macroeconomic and sector specific policies implemented for the greater part of the review period (1991-95), proved to be a disincentive to the emergence of a competitive domestic production sector. The overvalued and multiple exchange rate regimes, coupled with rapid and fluctuating inflation rates discouraged private sector investments in agriculture and exports, encouraged imports and affected the ability of producers to access critical inputs and supplies on a timely basis. Further, the sector specific policy of imposing price controls on many agricultural commodities in the short-term interest of consumers, worked to the detriment of producers and local production capacity.

However, from mid-1994, macroeconomic constraints to the agriculture sector were greatly minimised through the adoption of a single, much higher, official exchange rate in July 1994. This replaced the multiple exchange rate regime thereby significantly eliminating distortions. Further, in mid-1995, the Central Bank stabilized the parallel exchange rate and succeeded in reducing the rate of inflation. These measures, in spite of the effect of abruptly increasing real interest rates, resulted in stabilizing price levels and in a general improvement in macroeconomic conditions and in turn, laid the foundation for an upturn in private investment in the productive sectors, including agriculture.

The lack of private sector investment in agriculture was clearly evident over the 1991-1994 period. As indicated in Table 3, the share of commercial bank loans for agricultural enterprise development averaged 12%, with the share to fisheries and forestry averaging less than 1% each. Commercial bank credit is generally available from six banks, of which four (including the Agricultural Bank (AGB)) are state-owned. During the 1990-1994 period, 60% of total AGB loan portfolio was allocated to non-agricultural enterprises. Of the loan allocations to the agricultural sector, the rice sub-sector received the largest, but declining share of AGB credit (averaging 36% of loans disbursement).

Table 3

Suriname: Agriculture's Share in Commercial Bank Credit

	1991	1992	1993	1994	1995
Total credit Sfm	2,033	2,684	3,395	7,029	20,670
Shares %					
Agriculture	12.9	11.7	11.3	13.8	23.0
Fisheries	0.5	0.7	0.9	0.8	1.2
Forestry	0.8	0.3	0.4	0.2	0.2
Manufacturing	10.3	9.4	10.6	9.5	13.2
Commerce	28.9	31.9	33.1	33.8	28.5

Source: Revitalizing Agriculture in Suriname, IDB 1997

In addition, the National Development Bank (NDB) was the sole source of development financing for agro-industry projects. Due to the lack of development of the rural banking sector, several cooperatives constitute an important source of rural credit.

Agriculture in Suriname ~ Performance Indicators, 1991-1995

Overall Sector Performance

During the decade of the 1980s, adverse political events had serious repercussions on the performance of the agricultural sector. The maintenance of a chronically overvalued official exchange rate between 1983-92 discouraged (legitimate) agricultural exports, promoted smuggling and encouraged agricultural and food imports at the expense of domestic production. Further, market distortions generally favoured capital-intensive production and an excessive degree of mechanization in key industries, such as sugar, that not only displaced agricultural labour, but also made the sector vulnerable to the shortages of spare parts. Available information indicates a decline, both in terms of production acreage and total output. Such deficiencies in the domestic economy impacted negatively on the levels of production and income earnings in the sector.

The most seriously affected industries were the traditional export crops of rice, cocoa, coffee, citrus (grapefruit), sugar cane and palm oil. In fact, sugar cane production ceased in 1991 and the palm oil industry virtually collapsed. The palm oil industry was also adversely affected by the infestation of spear rot disease. Since both sugarcane processing and palm oil extraction involved major agro-processing activities and were very labour-intensive, the loss to the national economy of the contribution of these industries was quite substantial. Of the export crops, only banana maintained its market share and achieved some increases in production.

In contrast to the traditional export crops sub-sector, the domestic food sub-sector was able to maintain, and in some instances, increase levels of production, boosted by both domestic and external demand. Based on MoA estimates, the contribution of vegetables to the total value of agricultural production increased from 6.5 % in 1980 to 26% in 1990.

The implementation of the economic reform measures under the SAP was partially responsible for the 19% real growth reported

for the agricultural sector in 1991. However, as reported by National Accounts statistics, between 1992-1995, the performance of the agricultural sector deteriorated, characterised by wide fluctuations in the major sub-sectors (Table 4). Subsequent application of a multiple exchange rate system from 1992 until mid-1994 exacerbated market distortions and foreign exchange rationing and import licensing requirements contributed to increased production costs and often prevented farmers from obtaining necessary inputs when desired, if at all. Consequently, between 1994-95 declines were recorded in palm oil and vegetables, bananas and plantains, livestock (between 1993-1995) and fisheries.

Table 4

Suriname, Agriculture Sub-Sectoral Growth (%)			
@ 1980 prices	1993	1994	1995
Agriculture	2.6	-1.0	-5.6
Paddy rice	-16.7	0.0	3.3
Bananas	0.0	0.0	0.0
Plantain	7.7	0.0	0.0
Citrus & vegetables	35.1	-10.0	-17.8
Livestock	-16.0	-28.6	-6.6
Fishing	0.0	0.0	11.1
Forestry	0.0	-16.0	0.0

Source: IDB, 1997

Given the liberalisation of global agricultural trade and the difficulties experienced in the banana industry it is imperative that the agriculture sector maintains the capacity to supply a reasonable proportion of Suriname's domestic food requirements. Domestic food supply is undertaken primarily by a multitude of small farmers producing root crops, peanut, vegetables and other food crops. Suriname has a relatively high self-sufficiency in food crops, rice and beef cattle and eggs. However, most crop production, including food crops were reported to be stagnating.

Agricultural Diversification

Suriname's economy has traditionally been largely dependent on the mining sub-sector, and on a narrow range of agricultural exports (rice, banana, shrimp and forestry products). Rice and banana exports to the EU have

traditionally been undertaken within the EU-ACP preferential arrangements under the auspices of the Lomé Convention. In contrast, shrimp exports, primarily to Japan, do not benefit from preferential arrangements, and have managed to maintain relatively stable and secured markets through international corporate linkages.

Faced with global economic changes and trade liberalization, the Suriname Government's has refocused its economic diversification policy to include the expansion of the production base (in terms of output volumes and range of commodities produced) as well as the increase in export market options. In this regard, the agricultural sector is seen to hold some of the most immediate possibilities for diversification, through the prioritizing and targeting of new (non-traditional and "niche") crops for expansion and export. The private sector has already taken the lead in the areas of aquaculture and ornamental crop production.

However, the diversification programme lacked clear policy directions and guidelines as well as a feasible method of implementation. In addition to the numerous difficulties experienced by producers of traditional export crops, such as poor physical infrastructure, water management and support services, the level of R&D, technological application, market research and investment analysis assessment to support a vibrant agricultural diversification programme was generally lacking. The tendency to focus diversification initiatives on crop diversification, resulted in insufficient attention placed on measures to stimulate the agro-industrial sector as a means of facilitating agricultural development in general.

Initiatives to diversify the markets for agricultural products have also been limited. Up until the late 1980s, Suriname's exports continued to be almost exclusively geared towards traditional trade partners in the EU and Asia. Exports to the US and neighbouring Latin American countries were generally low and sporadic and there was virtually no exports to the Caribbean region.

Between 1988-89 and 1993-94, however, Suriname experienced significant changes in the geographical distribution of its exports. The United States and the South American markets (especially Brazil), became important trading partners. The share of the U.S. market increased from 17% in 1988-89 to 19% in 1993-94, while the share of the South American market increased from 7% to 10% over the same period. In contrast, trade with the EU, particularly with the UK and Germany, declined. The share of Suriname's exports to the EU declined from 35% in 1988-89 to 30% in 1993-94. The country's share of exports to Asia also declined over the same period. There was no significant change recorded for trade with the Caribbean and non-EU Western European markets. In other markets, the former Soviet Union absorbed more than 2% of Suriname's exports in 1993-94, compared with slightly less than 1% in the late 1980s.

Against the backdrop of trade liberalization and increased market access, it is imperative that further measures be taken to enable wider participation in trade, through improvements in the competitiveness of agricultural enterprises both in the domestic and export markets.

Commodity/Sub-sector Performance

Rice

Rice is Suriname's primary agricultural export and third leading merchandise export. In 1995, the rice industry accounted for 50% of all agricultural production, employed a labour force of approximately 8000 and occupied about 61,390 hectares of land. Within recent times, rice production was expanded from the traditional growing area of the Nickerie district to the Saramacca area. Suriname produces paddy or lowland rice, cultivated annually in a two-crop cycle.

Production is undertaken on farms ranging from the large 10,000 hectare state farms, to medium and large-sized privately-owned farms of between 100-2,000 hectares, to small holdings of 2 hectares. Recent estimates indicated a total of 5,540 rice farmers in Suriname, comprising approximately 87% small holders (those cultivating less than 6 hectares), 11% medium-sized holders (cultivating between 6-24

hectares), and 2% large holders (cultivating more than 24 hectares). Small holders tend to be part-time farmers, operating on rented lands. However, many of the larger farms are operated by extended families operating a vertically integrated production system (paddy production, rice processing and domestic and international marketing). With the exception of the manual application of seed, herbicides and fertilizers on small isolated plots, practically all rice cultivation operations have been mechanised.

Notwithstanding the slight increase (9.9%) in paddy rice production between 1990-93, the production pattern exhibited great annual variability with output reaching a high of 261.1 thousand tonnes in 1992, before falling dramatically to its second lowest level, in the last 14 years, in 1993 (Table 5). Further, the share of rice within total crop production declined from roughly 39% in 1988 to about 28% in 1993. For the agricultural sector as a whole, this represented a decline from 24% to 18% over the same period. This decline was attributed primarily to a lower sowing factor (or cropping intensity) which was reported to have fallen from 1.8 to 1.4 over recent years. The principal factors identified for this poor performance include the inadequate capacity of the main pumping station serving the Nickerie district, poor drainage and the lack of regular field leveling. In contrast, the yield remained fairly stable at the figure of 3.8.

Table 5
Suriname: Rice Industry Statistics 1991-1995

	1991	1992	1993	1994	1995
Paddy:					
Area: '000 ha.	60.1	68.8	58.6	60.0	61.4
Production '000mt	229.3	261.1	216.9	218.0	242.1
Yield	3.8	3.8	3.7	na	na
Rice Exports:					
US\$M	22.0	28.6	24.9	32.5	35.8
Price US\$/mt	416.7	376.0	335.1	403.2	403.2
Tonnes '000 mt	52.7	75.4	74.3	80.6	87.9

Source: Revitalizing Agriculture in Suriname, 1997

Rice exports contributed, on average 36% per annum of total agricultural export earnings between 1990-95. The share of rice in total exports has however declined considerably between 1985-1994, falling from 12.9% to 9.4%.

During the 1991-95 period, the volume of rice exports generally exhibited an upward trend, moving from almost 65 thousand tons in 1990, to approximately 88 thousand tons in 1995 (Table 5). The intervening years of 1991 and 1993 experienced relatively sharp declines in export volumes. The 18.7% decline in rice export volumes in 1991 occurred despite an almost 17% increase in the paddy production and an increase in the unit price to US \$416.7/mt. From 1991, the contribution of rice exports to foreign exchange earning increased.

By virtue of Suriname's membership in the Lomé Convention, rice is exported under preferential market arrangements to Europe. As an ACP member country, Suriname is permitted to export rice to the EU with a 50% import tariff reduction under a special ACP quota for all recipient members of 125,000 tons for cargo (brown) rice and a total ACP quota of 20,000 tons for broken rice. In addition, since becoming a member of the Caribbean Common Market (CARICOM) in February 1996, Suriname gained preferential access to CARICOM markets for rice exports.

Since 1991 however, Suriname has not taken advantage of the ACP quota system and has instead exported rice to the European market indirectly through the Overseas Countries and Territories (OCT) route. The advantages from utilising this alternative route were: (i) the addition of value through the processing of the cargo rice into semi-milled white rice in the Dutch Antilles; (ii) entry gained into the European market free of duties and quantitative restriction since the Dutch Antilles are considered territories of the Netherlands; (iii) the price commanded is usually higher than the world market price. For example, in April 1996, rice shipped through OCT was US \$405 a ton compared with the prevailing world market price of US \$360 a ton.¹ When duty exemption is added, the financial advantages of using the OCT route amounted to at least US \$174 a ton.² The stability of this route was tenuous since the major EU rice producers (Spain, Italy, and

¹ Suriname: Agricultural Mechanization Sub-Sector Review and Investment Requirements", FAO (1996)

² European Union, The Courier May-June 1995

France) actively opposed this special arrangement.

Suriname rice exports are currently facing competition in the EU market from U.S. rice, which is slightly shorter and results in smaller quantities of broken grains during the milling process³ The attributes of Suriname's rice, long grain characteristics, good flavour and cooking qualities, are likely to enhance the product's ability to compete if the existing preferential arrangements are phased-out in compliance with the disciplines of the WTO.

It is likely that so long as prices remain high, Suriname will continue to export rice as a semi-processed intermediate. In the 1995/96 marketing period, the price differential between milled and parboiled rice of US\$ 15 a ton did not merit the financial outlays required for parboiling facilities or the research and development costs required to solve the problems of disposing of water used during the parboiling process.⁴ However, this does not preclude the feasibility of installing such facilities in the event of falling prices.

Bananas

Banana is Suriname's second most important export crop. During the 1991-1995 period, the industry employed approximately 1,700 full-time and 900 part-time employees. However, between 1988-93, the share of the banana sub-sector within the total agricultural sector declined from 24% to 18%. Between 1991-1995, 99% of all production occurred within the state-owned company SURLAND on about 1,800 hectares of land. The total area cultivated increased steadily from 1985 to reach its highest level in 1991, at approximately 2,200 hectares. This has since leveled off to between 2,100-2,200 hectares a year.⁵

Suriname's banana production system was characterised by a relatively higher planting density than most other banana producing countries. For example, Suriname has 2,000 production units a hectare while in Central

American countries, the comparative figure is 1,500 units a hectare. Suriname's higher banana density is attributed primarily to the field layout of double rows of plants that are separated by drainage channels. One study has shown that this production system inhibits the entry of machinery into the field for many agricultural practices such as weed control and harvesting.⁶ This renders Suriname's banana cultivation and harvesting relatively labour intensive. The only mechanised operations are ditch cleaning and fertilizer application by air.

Banana production fluctuated between 47.5 thousand tonnes and 50 thousand tonnes over the period 1990-1995 (Table 6). Yields however, declined from 26 tons/hectare in 1988 to an average of 22 tons/hectare in the 1991-1993 period. The main factor contributing to the decline in yields were the lack of production inputs, rising production costs, plant disease, and management and labour problems at SURLAND.

Despite experiencing marginal declines in 1991 and 1993 respectively, the volume of banana (and plantain) exports increased from 28.3 thousand metric tons in 1990, to 33.8 thousand metric tons in 1995. In contrast, the unit price per ton declined for four consecutive years before increasing in 1995.

Table 6

Suriname : Banana & Plantain Production and Exports					
	1991	1992	1993	1994	1995
Banana					
Production, '000 mt	50.0	49.9	47.5	47.5	49.7
Planted Area, '000 ha	2.1	2.1	2.2	2.1	2.1
Yield - mt/ha	23.6	23.4	22.1	na	na
Banana Exports:¹					
US \$M	8.1	8.7	8.2	9.8	11.7
US \$ per mt	323.8	322.8	302.6	297.0	347.0
'000mt	28.2	30.2	27.1	33.0	33.8

1 - includes plantains

Source: Revitalizing Agriculture in Suriname, IDB 1997

Bananas are exported to the EU market under special provisions of the Lomé Convention, covering the period 1990-2000. Under Lomé IV, the duty-free quota for the EU and ACP bananas is set at a level equivalent to or higher

³ Suriname: Agricultural Mechanization Sub-Sector Review and Investment Requirements", FAO(1996)

⁴ Ibid.

⁵ "Revitalizing Agriculture in Suriname, IADB 1997"

⁶ Suriname: Agriculture Sector Study: Technical Analysis, Vol 2, B. Bishay (1987b)

than the highest level of shipments over the past five years. Suriname's EU quota is 38 thousand metric tons of bananas. The country has however failed to meet this quota requirement during the period, with the highest export volumes of roughly 33.8 thousand metric tons in 1995. As a result of the duty free access to the EU market, the financial benefit to Suriname's banana industry was estimated at about ECU \$ 75 a ton.

Low yields relative to its competitors have been cited as one of the major factors affecting the competitiveness of Suriname's bananas. The present yield of roughly 22 tons a hectare is well below that of Ecuador's, which reported yields of almost 40 tons per hectare. Transportation is also a high cost element of Suriname's banana industry which negatively impacts the overall production cost. The MoA reported an average transportation costs of US\$ 240 per ton compared to US\$100 per ton for Latin American producers. For the 1991-1995 period, Suriname's production costs for bananas was estimated at US\$4 per box. This compared unfavourably with Ecuador's estimated costs of US\$ 2 per box. The cost differential may be attributed to relatively lower wage structure and overall higher efficiency of the Ecuador banana producers. In spite of the semi-mechanised operations, during the 1991-1995 period, the Suriname banana industry operated within inefficient and outdated harvesting, packing and field transportation systems.

Suriname's small and flavourful 'Cavendish' variety bananas are reputed to be of a high quality and well received in the British market. Thus on this basis, Suriname may have a competitive edge over its lower-cost competitors.

Palm Oil

Palm oil production is probably one of the few agricultural activities in Suriname that is not concentrated on the coastal plain. The industry is wholly state-owned and cultivation occurs on estates located in the interior. The palm oil cultivated in Suriname is of the African type, cultivated from seeds imported from New Guinea, the Ivory Coast and Benin. The first

harvest usually occurs 3 years after planting and continues throughout the year, averaging about 45 harvests. The normal life span of palm oil trees is 18 years, with maximum yields achieved after 7 years. Yields usually range from 15-20 metric tons a hectare. The harvesting procedure is labour-intensive, requiring systematic and intensive monitoring and control to minimize losses. As is the case with other countries world-wide, mechanized harvesting is near impossible due to the need to maintain in-field drainage channels once the palms become established.

The total area dedicated to palm oil cultivation has declined steadily since 1985, with the MoA reporting 3,870 hectares under cultivation in 1994. Estimates for early 1995, indicate that only about 20% of the planted acreage for palm oil was in production; the remaining area having been abandoned.⁷ The principal factors contributing to the industry's decline include the widespread incidence of spear rot disease, rebel insurgency in the interior of the country where estates are located, and the shortage of foreign exchange needed for spare parts.

Despite the much reduced output levels compared to the 1980s, palm oil production rose steadily between 1990-92, from roughly 7.7 thousand tons in 1990 to 10.6 thousand tons in 1992 (Table 7). Yields in 1992 were reported at 10 metric tons/hectare. From 1992 however, production declined significantly, with productivity levels declining to about 7 metric tons/hectare in 1994. Fresh fruit bunches in Suriname had an extraction of 18% compared with 20% in Malaysia.⁸

Table 7

Oil Palm Production 1990-1995						
	1990	1991	1992	1993	1994	1995
Tonnes	7,695	7,814	10,640	8,681	6,890	n.a

Source : IDB 1997

Declining productivity levels was the main contributor to the reduction in output to 6.9

⁷ "Selection and Breeding of Spearrot-resistant Hybrids of *Elaeis oleifera* E. guineensis and Replanting of Infected Areas in Suriname" P. Cloesen (1995)

⁸ Suriname: Agriculture Mechanization Sub-Sector Review and Investment Requirements". FAO (1996).

thousand metric tons in 1995. The levels of fruit processing and crude oil, kernel cake and fatty acid production also declined. The effects of the last seven years of pest and plant disease, social unrest (resulting in the abandonment of many plantations) and the shortage of foreign exchange required to purchase the necessary spare parts and equipment were primary factors inhibiting the competitiveness of Suriname's palm oil industry. Suriname's palm oil was exported mainly to Europe, where it faced intense competition from higher efficiency, lower-cost producer, Malaysia.

Malaysia's production costs are reported to be significantly lower than Suriname's, particularly in terms of labour and transportation. Moreover, the oil extraction percentages are higher in Malaysia than Suriname. Fresh fruit bunches in Suriname recently had an extraction of 18% compared with 20% in Malaysia.⁹ Also unlike Suriname, the factories in Malaysia and Indonesia are established to compete at an international level, where computerized technology is used to maximize around-the-clock processing.

Fruits and Vegetables

The fruit and vegetable sub-sector in Suriname is considered to be an area with high export potential. The total area planted for both categories of crops remained fairly steady between 1990-94, with fruit averaging approximately 2,400 hectares, while vegetables averaged 2,200 hectares. Almost all vegetable production is undertaken by small holders, while 73% of fruit production is undertaken by small producers.¹⁰

Fruit production is dominated by citrus mainly oranges. Vegetable production however, spans a more diverse range, including tomatoes, cabbage, French beans, string beans, tanja leaves, chinese cabbage, eggplant, cucumber, hot pepper, pumpkin, gourd and okra. Various tree and root crops are also cultivated. These include among others, plantains, cassava, peanuts and maize. The acreage allocated to

plantain cultivation increased from 375 hectares in 1990, to 981 hectares in 1993.

Orange production increased marginally over the period from 13.4 to 14.1 thousand tons between 1990 and 1992. Grapefruit production, however, declined slightly from 1.3 thousand tons to 1.1 thousand tons over the same period (Table 8). Vegetable production generally increased, growing by 24.6% per annum between 1990-93, before declining in 1994. Peanut production also declined by 25% over the period. Those crops experiencing increases in output included cassava (43.5%), plantains (70.1%), palm ((38.3%) and urdi (16.7%).

Table 8
Fruit & Vegetable Production 1990-94

'000mt)	1990	1991	1992	1993	1994
Vegetables	23.2	33.1	35.9	43.9	38.4
Tree & Root crops					
- Cassava	2.5	3.1	3.5	n/a	
- Peanut	0.5	0.4	0.4	n/a	
- Urdi	0.1	.1	0.1	n/a	
Citrus	16.0	15.9	16.9	19.0	19.2
-Oranges	13.4	13.3	14.1	n/a	n/a
- Grapefruit	1.3	1.3	1.2	n/a	n/a
- Other Citrus	1.3	1.3	1.6	n/a	n/a

Source: IDB 1997

Both fruits and vegetables exhibited annual variability in yields. On average, yields of 24tons/hectare were recorded for fruit production in 1994 compared with 20tons/hectare in 1992. The average annual yield for fruit during the 1990-94 period was 22 tons/hectare. Vegetable yields fell from from 42.5 tons/hectare in 1990 to 37.5 tons/hectare in 1994.

Although the share of vegetable in agricultural exports increased in 1994 and 1995 respectively, in recent years fruit and vegetables exports have been erratic. This notwithstanding, vegetable producers expressed confidence that export opportunities do exist. Consequently, efforts are being accelerated to penetrate vegetable markets in the Netherlands (an 'ethnic market'), the UK and CARICOM. Exploiting these emerging market opportunities requires an increase in the competitiveness of fruit and vegetable enterprises.

⁹ "Suriname: Agriculture Mechanization Sub-Sector Review and Investment Requirements". FAO (1996)

¹⁰ Republic of Suriname: Small-holder Support Project Baseline Study Wrapup Report" ICAD(1996)

Among the principal factors affecting the competitiveness of the fruit and vegetable sub-sectors include the high production cost structure, unregulated use and questionable quality of agro-chemicals, lack of information and marketing skills of the small-scale farmer, high transportation costs, limited productive capacity and the difficulties in accessing high-quality planting material from both state and privately-owned nurseries.

Livestock Production

Suriname's livestock sector comprises cattle (both beef and to a lesser extent, dairy), pig and poultry rearing. Of these sub-sectors, only beef and beef products are considered to have export potential and capable of competing in international markets.

The performance of the livestock sector as a whole was characterized by generally declining output of the various industries (Table 9). Following a brief period of expansion by 17.1% between 1990-1992, beef production declined by 55.1% between 1992-1996. Recent data collected by the Livestock Department, indicate a total cattle herd size was recorded at 96,675 heads in 1993, representing an expansion over the 1985 estimate. As at 1992, 60% of the farms were located in the Wanica district. Other districts listed in 1992 as having a notable number of herds are Nickerie 14% and Para and Commewijne (each recording about 8% of total herds).

Table 9

Suriname : Livestock Production 1990-1996

tons	1990	1991	1992	1993	1994	1995	1996
Beef	2,251	2,661	2,637	2,183	1,840	1,648	1,184
Pork	1,666	1,976	1,450	1,400	920.0	796.0	944.0
Sheep & Goat	10.0	11.0	8.0	7.0	7.0	n.a	n.a
Poultry	11,415	9,563	8,800	6,760	3,935	3,300	3,268

Source : IDB 1997

Pork production experienced a similar performance, declining by 52.2% between 1991-1996. Poultry meat, however, declined consistently over the entire period from 11.4 thousand tons in 1990 to 3.3 thousand tons in 1996 - a decline of 71.4%.

Prior to the 1990's Suriname had achieved a reasonable level of self-sufficiency in meat production. In achieving this level of production, the industry relied heavily on imported production inputs (concentrate feeds, veterinary supplies and equipment). By the end of the 1980s, rising costs of inputs and scarcity of foreign exchange forced many dairy farmers to switch to beef production on grazing lands, a shift that was further prompted by Government controlled milk prices. Poultry production was also similarly affected by rising import prices for feed and other inputs as well as increased competition on local markets from low-cost imported chicken parts. This situation thus explains the constrained performance of the livestock sub-sector over the 1990-1996 period.

Fisheries

Suriname possesses rich fishing waters, both marine (coastal and deep-sea fisheries) and fresh and brackish water fisheries. Aquaculture has been a more recent feature of the Suriname fishing sub-sector.

In spite of this diversity of fisheries resources, Suriname's fishing industry has traditionally been based on shrimp production, which is geared primarily towards the export market. The industry's shipping fleet comprises (i) the trawling fleet, which is largely composed of commercial shrimp trawlers and a small number of large trawlers targeting fin-fish; and (ii) other vessels that are smaller in size than the standard shrimp trawler and comprise the broad category of small-scale fisheries.¹¹ Over the years however, foreign companies, including the Japanese and Koreans, have gained an increasing foothold on the shrimp industry, particularly the trawling fleet.

Table 10 indicates that the volume of shrimp landed from marine fisheries activities fluctuated at around 3,000 tonnes over the 1990-1992 period, with a general downward trend from 1991. Shrimp landings from the local fisheries sub-sector displayed greater levels of annual fluctuations between 1990-1994. Due to its significant export potential, the fisheries industry has, within recent times, been targeted for close attention by the MoA. Notwithstanding data

¹¹ The Export of Fishery Products from Suriname in the Period 1981-1995", P. Charlier (1996).

deficiencies, fish exports have reportedly, increased steadily throughout the 1980s, moving from 518 tons (net weight) in 1981 to almost 1000 tons in 1985.¹² This upward trend continued through to 1993.

Table 10

Suriname : Fish Landings and Exports 1990-95

Fish Landings	1990	1991	1992	1993	1994	1995
Local Fisheries:						
Shrimp (tons)	117.0	637.0	269.0	416.0	376.0	na
Crab (tons)	52.0	1.1	27.0	4.0	1.0	na
Other Fishery	3,333	7,096	13,182	9,470	5,677	na
Sea Fisheries						
Shrimp-(tons)	2,929	3,083	2,836	2,641	2,452	n.a.
Shrimp Exports:						
US \$ M	42.8	37.3	48.1	36.0	33.0	33.0
US \$/mt	12.9	12.2	14.6	13.0	12.7	12.7
Tons	3,312	3,065	3,301	2,760	2,603	2,603

Source: IDB 1997; National Statistics

The contribution of shrimp exports to the value of agricultural exports increased for three consecutive years between 1990 and 1992, from 53.8% to 55.1%, respectively. In the post-1992 period, the share of shrimp declined consistently, reaching 39.1% in 1995. Because shrimp is a high valued export commodity, the shrimp sub-sector has evolved as one of the main agricultural export sectors. Annual shrimp exports average 3,000 tons annually and in terms of value shrimp is Suriname's second most export after bauxite. However, since 1992, both the unit price and the volume of shrimp exported have declined, with a consequent fall in the value of shrimp exports. Shrimp, fish and fish products are directed mainly to the U.S. and Japan under open market conditions.

Following the introduction of standards by the European Union (one of Suriname's major markets) in 1995, issues such as export quality control and compliance to international standards have become increasingly important to the maintenance of Suriname's competitiveness in shrimp exports. As recently as May 1996, legislation for export quality was absent in Suriname. However, a draft concept paper was presented to the Council of Ministers with the intention of introducing mandatory standards for shrimp exports. In addition, the Fisheries Department, with technical assistance from the

¹² "The Export of Fishery Products from Suriname in the Period 1981-1995", P. Charlier 1996.

EU embarked on a training programme aimed at upgrading shrimp processing plants to International Standards Organization (ISO) 9000 certification.

Related to the issue of quality control and standards is the common practice of fishermen landing their catches at unregulated sites. In Suriname, fish are to be landed at designated sites, one of which is CEVIHAS, a government landing and storage facility. In the absence of strict governmental regulation however, landing takes place at several sites. This situation holds important health and standards implications for fish being sold in both the domestic and export markets. The prevalence of illegal fisheries and the generally unreliability of landing statistics for the industry is also a consequence of such lack of regulation.

Agro-processing

In Suriname, the agro-processing sector was traditionally small and concentrated in fruit and vegetable processing and alcoholic and non-alcoholic beverage production sector. The major traditional agro-industrial activity was based on sugar processing and the oil palm industries. Following the economic recession during the 1980s, the nascent agro-industries experienced further decline. The agro-processing enterprises which remained active in the 1990s were concentrated around rice, milk, fish, fruit and animal feed processing.

In addition to the disincentives to agro-industrial development created by the economic and policy environment, serious technological constraints as well as managerial deficiencies continued to plague the agro-industrial sector.

Forestry

Suriname possesses substantial tropical rain forests that have sustained logging operations for many years. Although logging operations and the export of lumber is an important industry in Suriname, production data on the size and output from the industry is notably absent. Trade data for lumber may, however, be used as an indicator of the size of the forestry industry (Table 11).

Table 11**Suriname: Lumber Exports 1991-1995**

Lumber:	1990	1991	1992	1993	1994	1995
US\$m	0.7	0.7	1.5	1.8	6.1	9.2
US\$/mt	305.8	305.8	248.0	300.0	469.2	489.2
'000 Tonnes	2.2	2.2	6.1	8.0	13.0	18.5

Source: IDB, 1997

Export data indicate that within recent years, the contribution of lumber to total agricultural sector export value increased steadily, from a mere 0.9% in 1990 to 10.9% in 1995. The volume of lumber exports increased substantially by 740% over the six year period (1990-95), from 2.2 thousand metric tons to 18.5 thousand metric tons. One may reasonably conclude that this increase in export volume resulted from an increase in lumber production. This may also be an indication of the steady increase in the area of forests exploited.

Constraints of Agriculture.

Given its role in national income generation, foreign exchange earnings and employment generation, agriculture continues to be a high priority sector. However, in spite of the various efforts at diversifying the production base, improving productivity and increasing the market prospects for a wide range of agricultural commodities, the agriculture and fisheries sector in Suriname continues to be a slow-growth sector, dominated by production and export of a narrow range of traditional commodities.

In addition to the constraints affecting specific sub-sectors and industries, the range of constraints to the development of the agri-food sector have been identified and may be summarised as follows:

1. Institutional/Structural weaknesses:

- weak macro-economic framework, manifested in weak inter-sectoral linkages between agricultural production and agro-industry and agriculture and other sectors of the economy;
- weak policy framework resulting in poor planning, evaluation and implementation of agriculture sector policies;

- limited public sector resources result in fragmented, inadequate and high cost of institutional support services, particularly in the areas marketing, research, training and reduced incentives in the sector and inadequate and deteriorating physical infrastructure;
- undeveloped financial sector and low levels of private sector investment in agriculture due to the high cost of money and absence of risk-mitigating facilities such as insurance, market guarantees, compensation act as a disincentive to investment in agriculture;
- undeveloped information systems create difficulties for effective sector planning, inability to conduct necessary analysis on all aspects of the sector and poor communication among all participants involved in agriculture.

2. Low Productivity and Competitiveness

- physical / geological limitations, including soil loss and degradation and difficulties in water management, which adversely affect yields, productivity and ability to mechanize farm operations;
- small domestic and regional markets;
- low levels of human capital, inadequate technology
- declining agricultural production and productivity since the 1960s versus increasing consumption due to population growth and expansion in tourism;
- a reduction in performance of traditional export crops due to declining production and falling real prices and a propensity to gear production for preferential market quotas;
- slow progress towards agricultural diversification and difficulty in competing in both domestic and export markets;
- deterioration in stock of capital and under-utilization of improved technologies to modernize the sector ;
- inadequate marketing and transportation facilities for trade in agricultural commodities;

Suriname's agricultural sector faces an inherent constraint related to the quality of available land resources. Of the total estimated 16.4m hectares of land, a mere 1.5m hectares (less than 10%) are considered suitable for agricultural use. In addition, approximately 85% of the arable land is concentrated on the relatively flat coastal plain characterized by low-lying land (0-4 metres above sea level) and fertile heavy clay soils. When drained, the soil is generally suitable for agricultural production. The soils of the interior are poor and access to these regions is difficult. Notwithstanding the relatively small arable land size, there is, however, widespread under-utilisation, with only an estimated 1% (106,000 hectares) generally under agricultural cultivation.

Low productivity and declining competitiveness has plagued the agricultural sector, including the main export industries of rice and banana, as well as the livestock enterprises. The persistence of low productivity in the 1990s is symptomatic of the general lack of science and technology applied to agricultural production. Suriname, as with many of the smaller Caribbean countries, has generally not kept pace with advances in agricultural technology.

The low levels of technological application are closely linked to the low and declining levels of domestic financial resources and external support necessary to facilitate high level training and increase the cadre of scientific manpower, to construct, equip and operate functional research institutions and/or adapt existing technologies to meet the specific needs of the country. The inadequacy of investment for technological development was apparent in the traditional industries sector which although enjoying relatively secure markets, failed to undertake adequate and appropriate technological improvements.

The limited investment taking place in the post-crisis period was largely concentrated in the traditional export enterprises, rice, fish and banana. In these areas, the priority concern has been to restore essential physical infrastructure and to increase output. The banana industry has taken the lead in financing technological

improvements within the industry. A major programme financed by Fyffes and the European Union provides for the upgrading of the sprinkler irrigation system, upgrading of the packaging and handling equipment and replacement of the overhead cable system, which is used for the in-field transport of bananas. Consideration was also being given to reorganizing the outdated field layout and planting systems.

The rice industry, however, has perhaps made the greatest progress in adapting from traditional manual production practices to mechanization with the establishment of the foundation for the Development of Mechanized Agriculture (SML). On the large farms most activities are now done by machinery including land preparation, sowing, fertilizing and spraying operations (done by aircraft) and harvesting. Most small rice farmers have only been able to invest and partially adopt technological improvements, mainly in such areas as spraying and use of improved varieties. The shrimp industry also adopted new technological innovations in order to maintain industry efficiency and competitiveness.

In contrast, the lack of technological application was a major factor contributing to the demise of the sugar industry. Apart from technological adjustments in areas such as land preparation, the adoption of technological innovations to factory operations were prohibitive in terms of cost. Thus despite government subsidies, viable economic production was unsustainable.

Against the backdrop of the economic, social and political events of the last decade, the economic development of Suriname, including all major productive sectors, have been seriously retarded. In the case of agriculture, the deteriorated physical infrastructure, the weakened institutional support services (including research and extension) and deteriorated plant and machinery are yet to be restored and rehabilitated. The 1997 IDB Report noted that *"the deterioration of Suriname's infrastructure during the last decade represents a large impediment to the efficient production of agriculture and has increased production costs for*

producers, exporters and importers". The main factors contributing to this situation were identified as dwindling budgetary resources, inadequate management capabilities, lack of clarity regarding responsibility for infrastructure maintenance among various Government departments, and the unresolved issue of how maintenance costs should be shared among the different government ministries and between the public and private sectors.

Thus while farming in parts of the coastal area is supported by a network of irrigation and drainage channels, particularly in the Nickerie District where large-scale rice production takes place, the irrigation and drainage systems as a whole have seriously deteriorated in recent years. This situation has adversely affected farm production in many areas.

Recognizing the critical role of maintaining an adequate physical infrastructure, the Government committed itself to a number of programmes and projects aimed at rehabilitation. Three priority projects are included in the overall programme, specifically, road improvement, water carriage and water management systems, with a total budget of US \$181mn. As part of the Government's plan to improve the irrigation and drainage situation in the country a "waterschapswet" or a modern water management institute has been established. Under this arrangement not only would producers have responsibility for maintenance but would also ensure their financial contribution to maintenance costs. The major research and training institutions face numerous constraints that inhibit their effective operation. Again, this unfavourable situation resulted from the continuous budgetary cut-backs for research and training

activities. The general inappropriate institutional facilities and structure has also exacerbated the financial situation and has hampered the flow of international support funds for scientific and technological activities.

The absence of technical personnel with specialized research and training skills and the lack of an incentive structure necessary to attract new personnel in the agricultural field have also been debilitating to agricultural sector development. This situation was exacerbated by the existing low salary level for junior agronomists in the government sector and the low status given to agriculture as a private sector career opportunity. This relatively low status accorded to agriculture as an employment opportunity also constrained efforts at providing training to upgrade skills of sector entrepreneurs. In fact, the 1997 IDB report also noted that the absence of basic agricultural education in Suriname was striking and previous attempts at improving the situation have been largely unsuccessful.

Generally, the adverse effects of domestic level constraints on the emergence of a viable agricultural sector have been brought into clear focus in the emerging trading environment of the 1990s. Global recession, which adversely affects the demand for imports and other external shocks which reduces foreign investment also impact the national economy in general and the major economic sector, in this case agriculture. More recently, export agriculture, has had to contend with the changing rules of international trade. Thus in addition to the numerous constraints to efficient agricultural production at the domestic level, the sector is most influenced by, and continues to be vulnerable to international developments.

Agriculture in Suriname ~ Prospects

International Environment

Towards the year 2000, world agriculture will be increasingly influenced by the rapid pace of globalisation and trade liberalisation. Trade is identified as the driver of this dynamic environment, which is changing the trading

relations among nations, including the nature and pattern of agricultural trade. Prior to 1994, global agriculture was very heavily regulated by regional, hemispheric and international agreements. With the conclusion of the 1986-1994 Uruguay Round and the establishment of

the World Trade Organisation (WTO) the reduction of protection to agricultural production and trade has come under intense pressures.

The WTO Agreements which hold greater significance for agricultural production and trade are the Agriculture Agreement (which comprises concessions and commitments made on market access, domestic support and export subsidies), the Agreement on Sanitary and Phyto-Sanitary (SPS) Measures, and the Decisions Concerning Least Developed Countries (LDCs) and Net-Food Importing Developing countries (NFIDCs).¹³ By virtue of Suriname's membership in the WTO, the country's commitments to these reforms are to be implemented over a 10-year period, with all commitments to be included in its schedules of agricultural concessions and commitments.

The following section summarises the main elements of the Agreements only as they relate to developing countries.¹⁴

- **Market Access:** requires the conversion of all non-tariff border measures, such as import quotas, to tariffs which provide the same protection (a process called tariffication). Tariffication is to be followed by a reduction in all tariffs by 24%. Provision is also made for the institution of a minimum-access tariff quota, initially set at 3%, to increase to 5% at the end of the implementation period. However, under the agreement, countries are allowed to include special arrangements in their minimum access commitment and to allocate their minimum access to exporters with special arrangements. Special safeguard provisions have also been included for tariffied products that "will allow additional duties to be applied in cases where shipments priced in domestic currencies fall below a certain trigger or in the case of import surges (GATT 1994a, 46). This introduces the possibility of new protective measures being used in

agriculture, a feature which may represent a weakness of the agreement.

- **Domestic Support:** requires countries to reduce the level of expenditures on domestic agricultural support measures which distort genuine trade (referred to as amber box aggregate measures of support (AMS)), by 13.3% over the implementation period. Amber AMS include acreage payments, certain subsidised loan programmes, input subsidies and price support.
- **Export Subsidies:** Countries are committed to reduce the value of direct export subsidies by 21% and to reduce the volume of subsidised exports by 14% over the implementation period. Developing countries are exempted from commitments on marketing of agricultural exports or internal transport subsidies.
- **SPS Agreement:** this agreement covers food safety and animal, plant and health regulations. The agreement stipulates that the use of these measures should only be in instances where human, animal or plant life or health is threatened. Countries (both developing and developed) are encouraged to base national SPS measures on international standards, guidelines and recommendations; higher standards may only be imposed if there is scientific justification
- **The Decisions on Measures Concerning the Possible Negative Effects of the Reform Programme on LDCs and NFIDCs** seek to ensure that these countries are not disadvantaged in terms of higher food prices. The provision of food aid and basic food stuffs provided in full grant form constitutes the key elements of these Decisions.

The basic objective of agricultural trade liberalisation is to reduce the level of protection which imposed constraints to other potential suppliers of the specific agricultural commodities. For agri-food producers, tariff reductions and the elimination of quantitative

¹³ "The Trading System After the Uruguay Round" John Whalley and Colleen Hamilton, Institute for International Economics, Washington DC, July 1996.

¹⁴ Ibid.

restrictions may impact positively on their production costs, particularly as it lowers the cost of imported inputs. While lower costs of imported inputs is one element in enhancing commodity competitiveness, other factors, such as increased productivity, improved fruit quality and improved commodity marketing are equally important in producing a cost and quality competitive commodity.

International - Domestic Link

Suriname, more so than most other Caribbean countries, has been largely insulated from open market conditions and is a relatively minor player in international trade generally and agricultural trade in particular. Suriname's agricultural exports, both in terms of markets and diversity of commodities are very concentrated. Rice and banana exports have been traded to the EU under preferential market access arrangements, and with shrimps exported almost exclusively to Japan.

While these global developments will have profound impacts on the country's agricultural sector and economy, since joining the Caribbean Common Market (CARICOM) in 1996, Suriname has already felt the impact of market opening within the region. Consequently, the viability of many of the country's agricultural industries producing for the domestic market has been seriously threatened by imports of similar products, due both to the country's entry into CARICOM and the need to comply with the WTO Agreements.

As is the situation with many other Caribbean countries, Suriname's implementation of its commitments under the WTO has progressed rather slowly. This is partially due to the reluctance in fully adopting trade liberalisation as a macro-economic objective. Much of this reluctance is related to its inability to compete against imports and the implications which this lack of competitiveness will have for employment, national income and economic growth and well-being of the resource-constrained small farming community.

In addition to the slow pace of implementation of the WTO 1994 Agreements, Suriname must

now prepare for the next Uruguay Round in Agriculture, negotiations for which are due to begin in 1999. It is very likely that this Round will place additional pressure in the EU to further liberalise its internal agricultural policy. The EU and the ACP are currently engaged in discussions towards the development of a post-Lomé IV arrangement and preparations are also underway for the review of the EU's Common Agriculture Policy (CAP). It is expected that these the outcome of negotiations will impact on the EU's ACP trade preference regime and on the special commodity protocols in particular (including banana).

Given the export-oriented role assigned to agricultural output, the sector's prospects will be conditioned by the new trading environment and the changing patterns of production, food sourcing, preparation and distribution and consumption. Of priority concern is the dominant international trends for the major export commodities and the implications for the prospects for Suriname exports. The export sub-sector, particularly bananas, has already begun to feel the effects of liberalisation in the global agri-food trade.

International Commodity Trends

Export Agriculture

Rice*

World rice production and consumption are projected to increase gradually, each by about 1% per annum between 1995-2005. Rice trade in particular is projected grow at 1.4% per annum between the 1995/96-2005/06 marketing period. Global import growth will be fueled by population growth and strong per capita income growth in China, Indonesia, the Middle East, Central America and the Caribbean. Although nominal rice prices are projected to rise, real prices will tend to fall.

For Suriname, one of the two Caribbean rice exporters, the conditions on the preferential access EU market is of the most immediate interest. From 1992, Suriname exploited the indirect preferential access route to the EU market granted to ACP industrial and processed agricultural products under the Overseas Countries and Territories (OCT) arrangement. This OCT route has in fact

become the principal export destination for rice (through Curacao & Bonaire) for Suriname in the last five years. This arrangements remained in effect until January 1997, when introduced safeguard measures and tight restrictions were imposed in favour of EU domestic suppliers (Italy and Spain). Preliminary analysis by the CARISEC indicated that while the short-term impact of these safeguard measures on Suriname's rice exports were profoundly negative, in the long-run, these measures could prove beneficial, particularly as it affects the stability of rice prices in the European market.

In spite of the ongoing pressures to liberalise all agricultural trade, conditions in the EU rice market, in the aftermath of the termination of the OCT arrangement is expected to remain relatively stable for Caribbean exporters. The fact that Suriname's rice is considered to be of a high quality offers the product some advantages over competitors. However, in the long-run, given the likely phase-out of the preferential markets after 2005, Suriname rice exports to the EU will be faced with generally lower price levels. The implications of this will be manifested in large foreign exchange losses to the rice industry and the Surinamese economy. This situation may be mitigated, however, with appropriate trade and investment policies designed to enhance the industry's competitiveness. In addition, given the central role of the rice industry in the agricultural sector, the acceleration of agricultural diversification would ensure some level of compensation for the predicted fall in rice revenues.¹⁵

Suriname's policy objective for the rice industry is to increase production from about 284,000 tons of wet paddy per year to the 1985-86 level of about 325,000 tons per year. Achieving this objective requires that existing infrastructure be rehabilitated and appropriate and enabling macroeconomic policies be developed to allow the rice industry to be both competitive, both in terms of the export market as well as in terms of generating returns to investments made by the numerous rice farmers in Suriname.

¹⁵ Revitalizing Agriculture in Suriname, IDB, 1997

BANANA

Bananas are among the most important tropical fruit in world trade. However, although per capita banana imports have risen over the last ten years, real prices have generally declined due to an increase in world production and competition from other fresh fruits. In the absence of unanticipated shortfalls in world production (due to natural disasters in the main producing zones), world supply will continue to slightly outpace demand. This situation is expected to keep prices closer in line with actual production costs.

Conditions are also expected to intensify on the EU market in the aftermath of the 1997 WTO's ruling against the EU Banana Regime. The ruling upheld the United States, Guatemala, Honduras and Mexico complaint that the existing regulations under the EU New Banana Regime are discriminatory and restrictive, violating free trade rules. In fact, the final report stipulated that the NBR violated free trade on 19 counts. This decision signaled an acceleration of the EU banana market liberalisation in advance of the guaranteed market protection to the year 2002. In September 1997, the EU adopted the WTO's rulings and by October, had undertaken to change its licensing regime. It is anticipated that the EU will be allowed until the end of 1998 to complete the reform.

The ongoing banana dispute between the US and the EU is a clear indication that an arrangement which satisfies the US's demands for liberalisation of the EU banana market and which simultaneously ensures that the economic foundation of traditional ACP supplies is not destroyed will be a difficult to achieve. The prolonged banana dispute could add further uncertainty to the already insecure circumstances surrounding the Caribbean banana industry, including that of Suriname. In this environment, the prospects for Suriname's banana industry will depend increasingly on increased production efficiency, price and quality market competitiveness. Given that Suriname's bananas are reputed to be of a high quality constitutes an important base upon

which competitiveness can be increased.¹⁶ The banana is of the 'Cavendish' type, which is small and flavourful and well received in the British market. Consequently, bananas from Suriname have a competitive edge over those from Ecuador, which are considered inferior despite their larger size and fewer blemishes than the Surinamese fruit.

However, the difficulties experienced in terms of fulfilling its EU market quota of 38,000mt, presents a formidable challenge to the industry to achieve an optimum level of production which will strengthen its competitive position under open market conditions. Measures must be put in place to overcome the physical limitations to production as well as relatively low efficiency and productivity levels in the industry.

The ability to achieve further improvements in fruit quality and to expand area under production, will contribute to goal of increasing exports to 45,000mts. In addition, the continuation of the industry's infrastructure rehabilitation, including the port facilities, as well as the logistics and organisational improvements, will enhance Suriname's prospects for survival in a liberalised market environment.

Palm Oil

The overall market trend in the oils industry is increasingly being determined by an health-conscious population. Consumption patterns have shifted towards acceptance of vegetable oils, which offers producers opportunities in this rapidly growing vegetable oil market segment. Based on the IDB (1997) report, due to the long-term adverse effects of the pest and disease infestation, destruction to estates from social unrest and the critical foreign exchange situation which severely hampers factory efficiency, the prospects for the palm oil industry participating in this growth market appear very bleak.

In recent years, the Government has attempted to revitalize the industry by expanding production near the Victoria processing plant.

¹⁶ Ibid.

Even if production is increased to the pre-1980s levels, Suriname's palm oil exports will be faced by intense competition from lower-cost producer, Malaysia (the main competitor in the EU market) and Costa Rice, which has emerged as a major palm oil exporter. However, doubts have been expressed about the prospects of reviving Suriname's Palm Oil industry in line with international standards. In addition, the general problem of lack of private sector investment in agriculture continues to be a very critical constraint to the revival of the palm oil industry in Suriname. In fact, the IDB concludes that it is unlikely that opportunities exist for exports of this product and that the expansion of the industry will extend beyond satisfying domestic demand for vegetable oils.

Shrimp

Shrimp is a high-value low volume commodity and is capable of sustaining high foreign exchange earnings. The global shrimp market is very demanding, in terms of quality and highly competitive. Suriname has managed to maintain a reputation for export of high quality shrimp, almost exclusively to Japan.

The reduction in export volumes within recent times, however, has been a serious cause for concern in the industry. This situation derives from a decline in marine shrimp resources due both to over-shrimping and illegal shrimp activity. In fact, the annual production fluctuation around 3,000 tons, indicated that the maximum permitted catch has already been attained. Consequently, the long-term prospects for the industry have been seriously compromised.

Lumber

Based on the extent of forest reserves, the prospects for continued growth of the lumber industry in Suriname appear favourable. However, this is conditioned upon the proper management of forestry activities, particularly within the context of the growing strength of environmental lobbyists. In fact, within recent times, the Suriname government has placed the forestry sub-sector under increasing scrutiny. This is particularly in terms of ensuring that the foreign-owned companies to which quite substantial forested areas have been leased,

conduct their logging business in an "environmentally friendly" manner. The forestry industry's prospects are also conditioned on the ability to regulate land lease, particularly in instances when such infringes on land traditionally under the control of the indigenous people. One problem faced by the State is the lack of trained personnel and other resources necessary to supervise and monitor the operations of the forestry companies. This problem is compounded by the absence of an overall environmental policy aimed at controlling the exploitation and use of natural resources.

Other Agriculture

While the main export industries to some extent receive some level of insulation from the effects of the prolonged economic, social and political instability of the last decade, the efficient activity in domestic food sector and agro-processing industries continues to be seriously retarded. Given the existing physical and institutional support structures, the absence of a clear and well defined policy framework and directions for agricultural development, there has been very little capital re-investment and re-employment in the sector.

Although the agricultural sector continues to provide a wide range of food crops, fruits and meat products (mainly beef and to a lesser extent, poultry), such production occurs under extremely difficult conditions. Suriname is well endowed in terms of land availability, to produce a significant proportion of its food supply as well as to increase both the volume and range of its agricultural commodity exports. However, prospects for a viable agricultural sector continue to depend largely on economic reform, particularly of the exchange rate and trade regimes in order to remove the anti-export bias, as well as sound macro-economic policies to facilitate private sector investment in agriculture.

In spite of the difficult conditions faced by producers in the agricultural sector, Suriname experiences relatively high self-sufficiency levels in a wide range of food crops, mainly vegetables, beef and fish products and eggs. In fact, annual imports of fish and beef products

have generally been negligible. The inappropriate economic environment has exacted a heavy toll on fruit, milk and poultry production in particular.

Agro-Industry

Previous sections have alluded to the critical role which agro-industry can play in the transformation of agricultural production and in the sustainability of the agri-food sector in all its dimensions. This is even more important given the growing trends towards the consumption of semi- and processed fruit and vegetable products. With the exception of the organic fruit and vegetable market segment which has recorded significant growth in this decade, the demand for processed fruit and vegetable products has grown more rapidly than that of fresh fruit in particular. Growth in the demand for fruit products, such as segments, pulps, juices and purees, in developed countries offer opportunities for efficient agro-processors.

The need for reform of the economic and monetary regimes is an important prerequisite is Suriname is to take advantage of the emerging opportunities in the processed food markets. Such reform is critical if Suriname's agricultural sector is to be an effective contributor to national income and employment. A necessary precondition for successful revitalization is the restoration of the deteriorated physical infrastructure, the weakened institutional support services (including research and extension) and deteriorated plant and machinery. These efforts must also be augmented by a clear and well defined policy framework (incorporating macro and microeconomic policies for the sector) and directions for growth and development. In the final analysis, the aim should be to develop an agricultural sector capable of competing in a world economy characterised by a deepening of agricultural trade liberalization which holds implications for nature and scope of preferential trading arrangements.

Guidelines for Policy Formulation

The Government of Suriname has committed to the provisions of the WTO Agreement, including reducing public sector support to

agriculture. Against this background, all actors in the sector are challenged to develop WTO-consistent mechanisms to increase productivity and competitiveness in the sector.

Competitiveness in agriculture can be viewed as a dynamic economic concept inherent to globalisation, that takes into account the need to adjust to the macroeconomic environment, adapt to the astonishing pace of technological innovation and be flexible in terms of the requirements of sustainable and equitable development.

AGRIFORUM - Towards an Agenda for Agriculture in the Americas, DIREXCOM, IICA Headquarters, Costa Rica, August, 1997.

The challenge continues to be one of sustaining efficient traditional crop production while expanding into a more flexible, diverse agriculture. Policy makers are thus faced with the twin tasks of increasing productivity and competitiveness within a free trade environment while simultaneously keeping the adjustment costs relatively small so as to minimise the negative impact on resource constrained groups. This can only be achieved through an appropriate mix of enabling policies, technological research and development, investment and continuous human resource development.

Policy decision making for Caribbean Agriculture should place priority on the following considerations in the design of an agricultural development strategy.

- An Enabling Policy Environment which combines new public policy for rural areas with current macro-economic policy to enhance competitiveness. This should include policies which ensure rational

spending of public resources on direct works that support the market rather than replace it. This strongly suggests an increased role of the private sector in all dimensions of the agricultural sector.

- Dynamic and Flexible Support Institutions through the transformation of the institutional framework. Institutional evolution should be characterised by reform/development of specialist institutions and an integrated and dynamic public and private sector partnership with the capacity to capitalise on strategic and tactical alliances for developing the sector.

(Report on the CARICOM/Mexico Agro-Industry Project, SCMA, Guyana, April, 1997).

- Given the human and financial resource constraints, it may be more feasible for Suriname to actively support the establishment and effective operation of a regional or sub-regional research centre for technology generation and transfer. This will be a pre-requisite for achieving and maintaining competitiveness and sustainability of the agricultural sector.
- Human Resource Development and the continuous development of the knowledge base will become a fundamental factor of production. Attention must be placed on the provision of high quality and timely education, which takes into account production and social requirements of the sector. Training and investment in human resources, particularly in the rural areas are inextricably linked to the sector modernisation process, competitiveness and equity.



**INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE
CARIBBEAN REGIONAL CENTRE**

3 Herbert Street, Newtown, P.O.Box 1318, Port of Spain
TRINIDAD AND TOBAGO

Tel: (868) 628-4463/4678/4979; 622-7050/7086; Fax: (868) 628-4562; Cable: HCAPOS; Email: licatt@licacarc.org